Typical Email Viewer

Folders	Date	Sender	Subject	Time	....
Inbox					
AN	7/12	Denis@	Partners	4:00	....
	7/12	Steve@	Help De	1:00	....
Denis	6/12	Sam@	Tonight	6:00	....
	5/12	JavaList@	News	7:00	....
Ken	4/12	OCRI@	Event	9:00	....
	4/12	CITO@	News	10:00	...
Connie	3/12	Denis@	Partners	3:00	....
	3/12	Ken@	Partners	4:00	....
SPAM	2/12	Ken@	Server	2:00	...
	2/12	Sue@	Finance	1:00	....
Outbox	'12	Connie@	Research	7:00	....

(a)

Typical Email Viewer

Folders	Date	Sender	Subject	Time	....
Inbox					
AN	4/12	CITO@	News	0:00	...
	2/12	Connie@	Research	7:00	....
Denis	7/12	Denis@	Partners	4:00	....
	3/12	Denis@	Partners	3:00	....
Ken	5/12	JavaList@	News	7:00	....
	3/12	Ken@	Partners	4:00	....
Connie	2/12	Ken@	Server	2:00	...
	4/12	OCRI@	Event	9:00	....
SPAM	6/12	Sam@	Tonight	6:00	....
	7/12	Steve@	Help De	1:00	....
Outbox	'12	Sue@	Finance	1:00	....

(b)

Figure 1

Typical Email Viewer

Folders	Date	Sender	Subject	Time	....
Inbox					
AN	4/12	OCRI@	Event	9:00	....
	2/12	Sue@	Finance	1:00	....
Denis	7/12	Steve@	Help De	1:00	....
	4/12	CITO@	News	10:00	....
Ken	5/12	JavaList@	News	7:00	....
	7/12	Denis@	Partners	4:00	....
Connie	3/12	Denis@	Partners	3:00	....
	3/12	Ken@	Partners	4:00	....
SPAM	2/12	Connie@	Research	7:00	....
	2/12	Ken@	Server	2:00	...
Outbox	'12	Sam@	Tonight	6:00	....

(c)

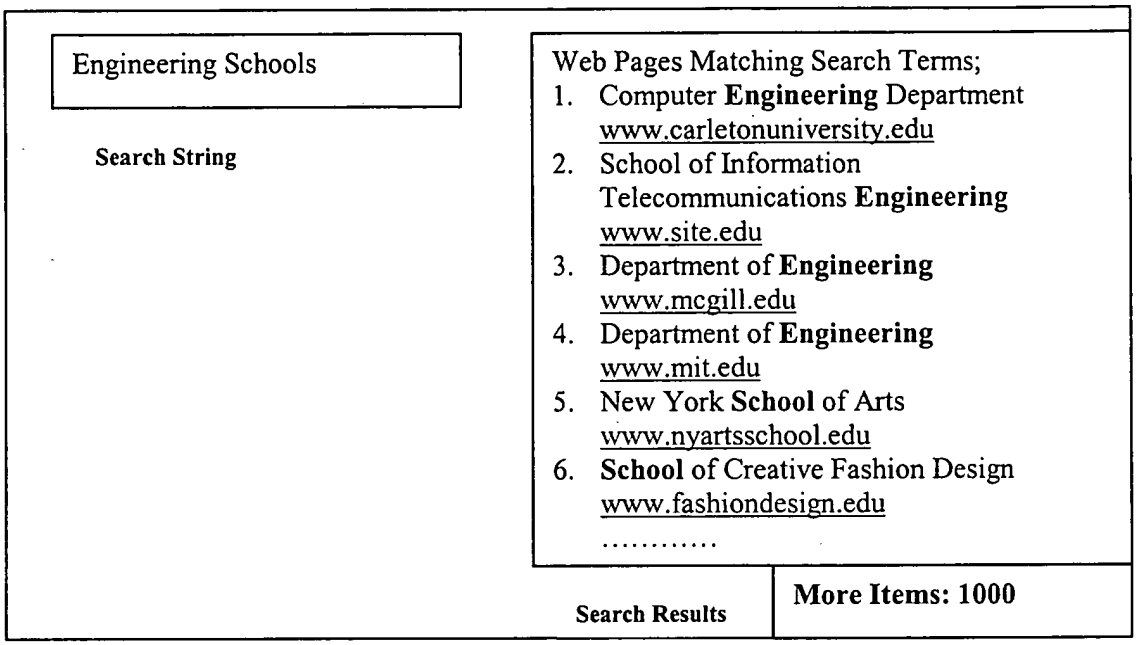
Figure 2

Typical Unified Message Viewer

Folders	Date	Sender	Subject	Time	Type
Inbox					
AN	7/12	Denis@	Partners	4:00	email
	7/12	Steve@	Re: Help	2:00	vmail
	6/12	Sam@	Map	7:00	fax
Denis	5/12	JavaList@	News	7:00	email
	4/12	OCRI@	Event	9:00	email
Ken	4/12	Guy@	Advertis	10:00	fax
	3/12	Denis@	Partners	3:00	email
Connie	3/12	Ken@	Update	4:00	vmail
	2/12	Ken@	Server	2:00	email
SPAM	2/12	Sue@	Finance	1:00	email
	'12	Connie@	Research	7:00	email
Outbox					

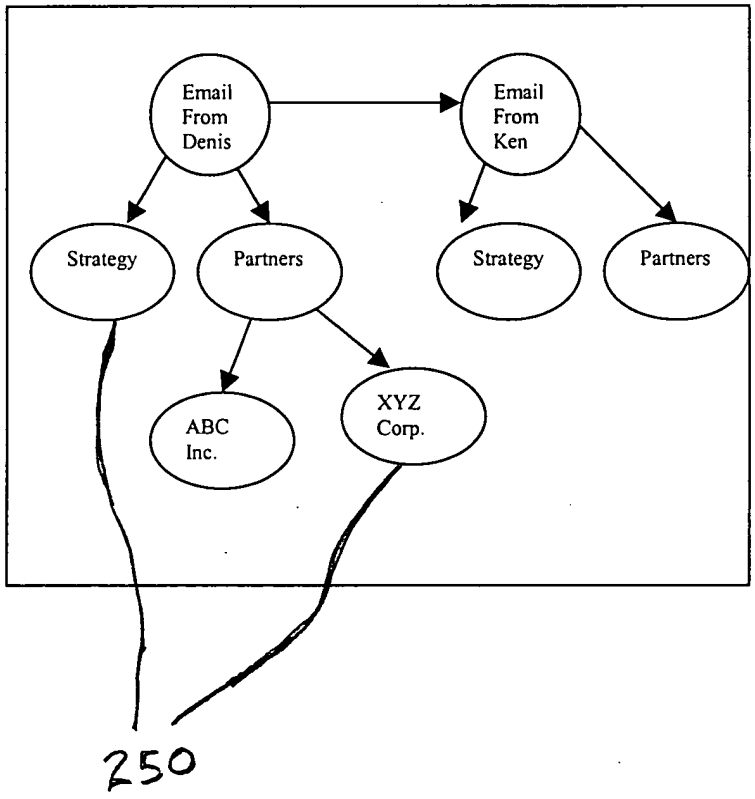
09020605-070404

Figure 3



09606605.070404

Figure 4



09802026-070403

Figure 5

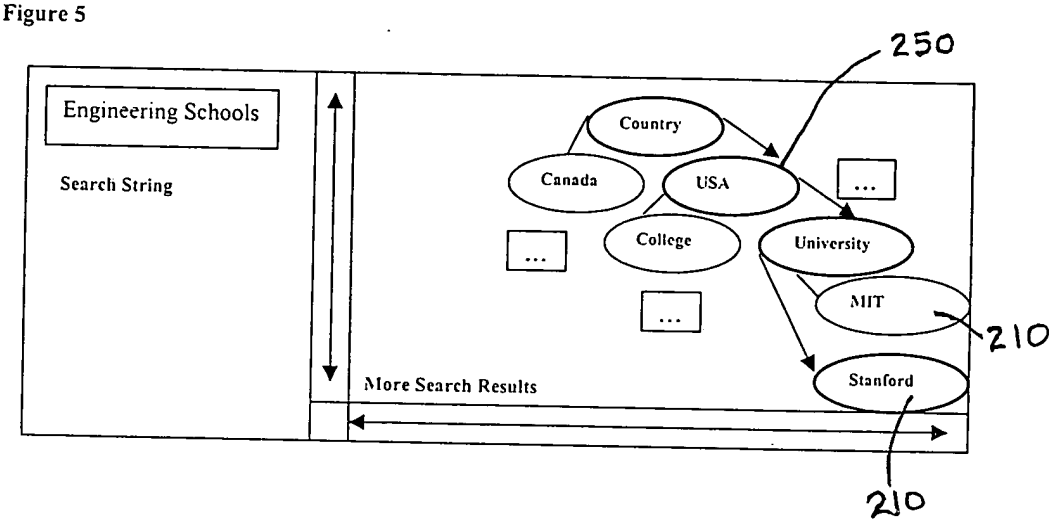

250
Engineering Schools
Search String
Country
Canada
USA
...
College
University
...
MIT
210
More Search Results
Stanford
210

Figure 6

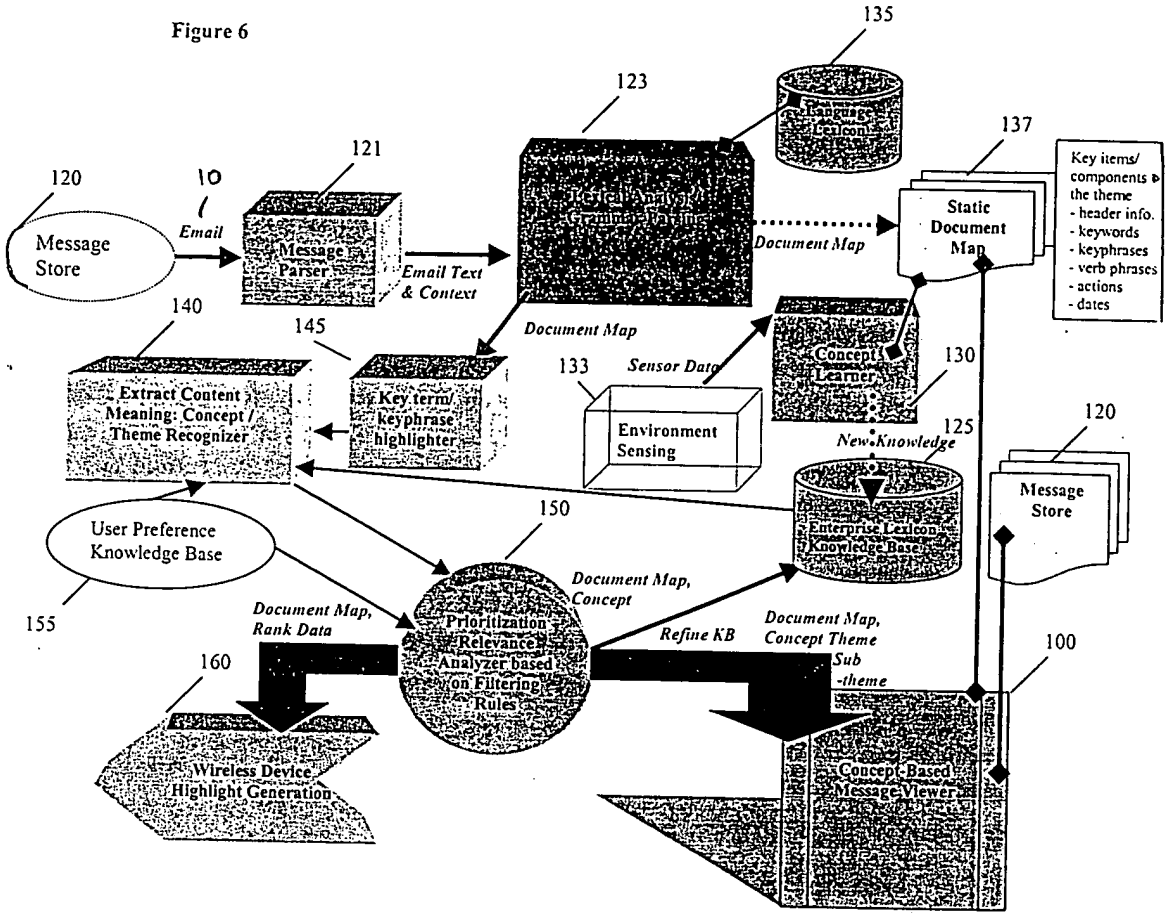

135
123
137
121
120
10
Email
Message Store
Message Parser
Email Text & Context
Language Lexicon
Static Document Map
Key items/ components of the theme
- header info.
- keywords
- keyphrases
- verb phrases
- actions
- dates
Document Map
140
145
Document Map
133
Sensor Data
Concept Learner
130
Extract Content Meaning: Concept / Theme Recognizer
Key term/ keyphrase highlighter
Environment Sensing
125
New Knowledge
120
Message Store
Enterprise Lexicon Knowledge Base
150
User Preference Knowledge Base
155
Document Map, Concept
Document Map, Rank Data
Refine KB
Document Map, Concept Theme
Sub -theme
Prioritization Relevance Analyzer based on Filtering Rules
100
160
Wireless Device Highlight Generation
Concept-Based Message Viewer

Figure 7

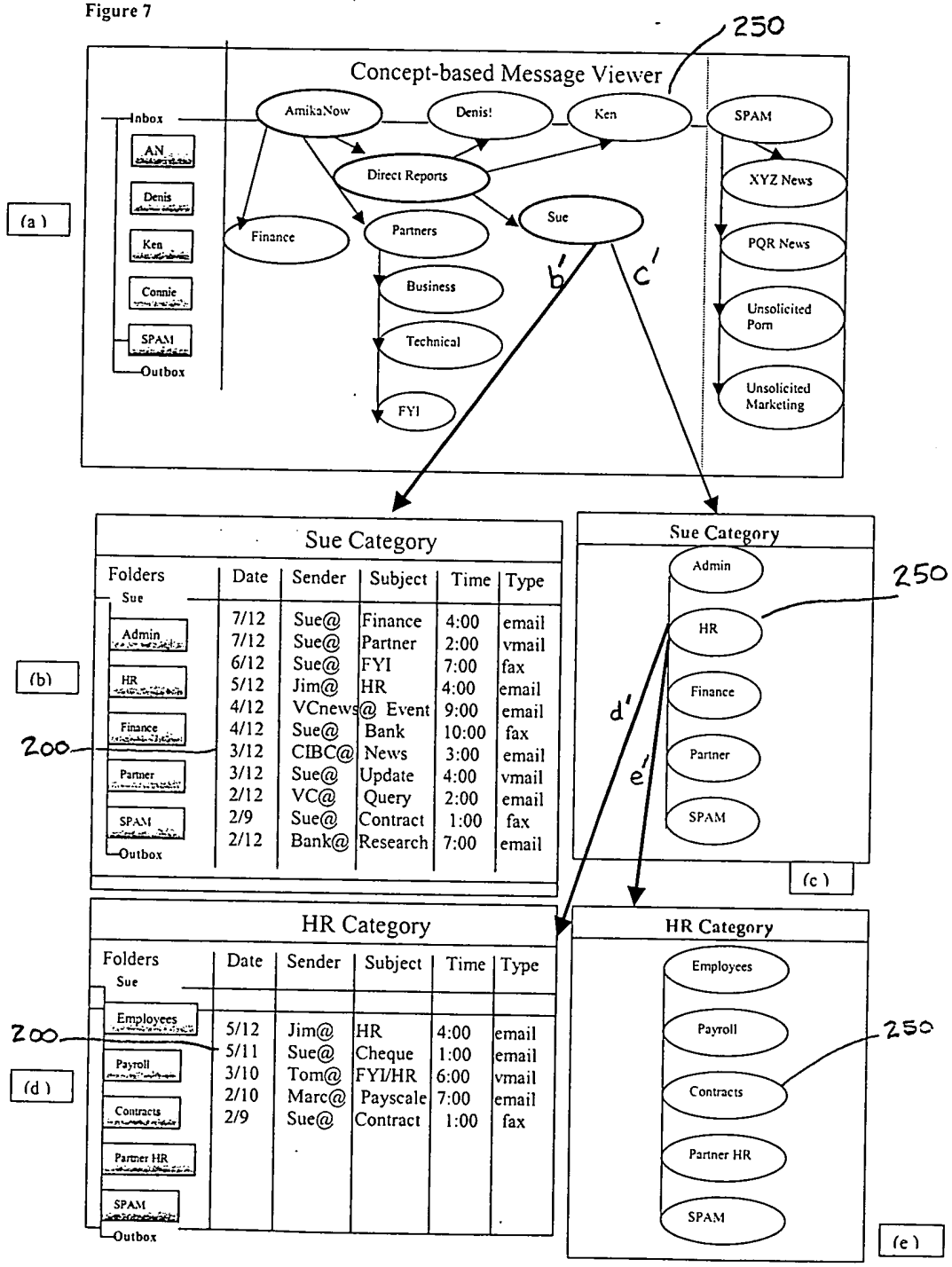
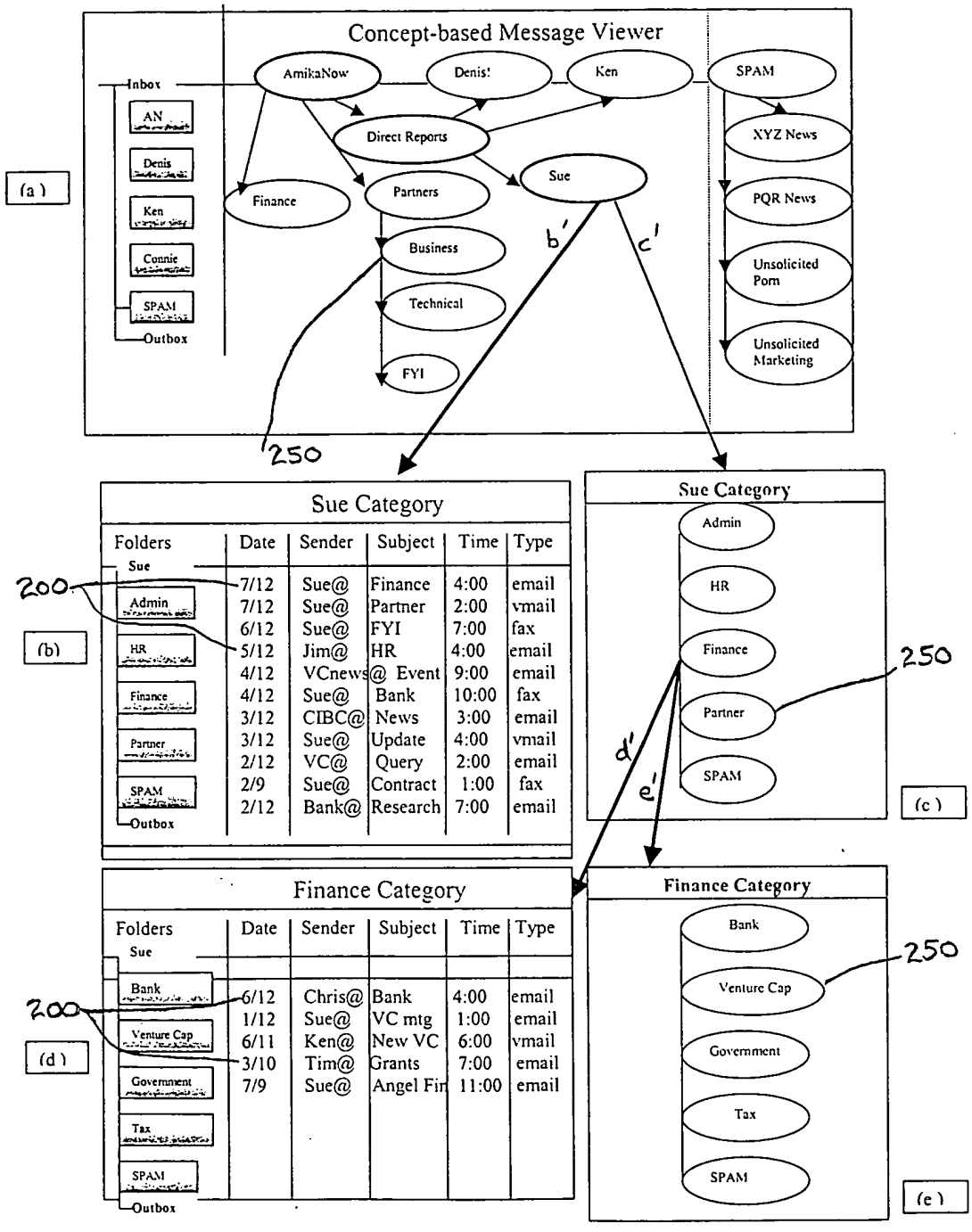

250
Concept-based Message Viewer
Inbox
AN
Denis
Ken
Connie
SPAM
Outbox
AmikaNow
Denis!
Ken
SPAM
Direct Reports
Finance
Partners
Sue
Business
Technical
FYI
XYZ News
PQR News
Unsolicited Porn
Unsolicited Marketing
(a)
b'
c'
Sue Category
Folders
Sue
Admin
HR
Finance
Partner
SPAM
Outbox
Date Sender Subject Time Type
7/12 Sue@ Finance 4:00 email
7/12 Sue@ Partner 2:00 vmail
6/12 Sue@ FYI 7:00 fax
5/12 Jim@ HR 4:00 email
4/12 VCnews@ Event 9:00 email
4/12 Sue@ Bank 10:00 fax
3/12 CIBC@ News 3:00 email
3/12 Sue@ Update 4:00 vmail
2/12 VC@ Query 2:00 email
2/9 Sue@ Contract 1:00 fax
2/12 Bank@ Research 7:00 email
(b)
200
Sue Category
Admin
HR
Finance
Partner
SPAM
250
d'
e'
(c)
HR Category
Folders
Sue
Employees
Payroll
Contracts
Partner HR
SPAM
Outbox
Date Sender Subject Time Type
5/12 Jim@ HR 4:00 email
5/11 Sue@ Cheque 1:00 email
3/10 Tom@ FYI/HR 6:00 vmail
2/10 Marc@ Payscale 7:00 email
2/9 Sue@ Contract 1:00 fax
200
(d)
HR Category
Employees
Payroll
Contracts
Partner HR
SPAM
250
(e)

Figure 8


Concept-based Message Viewer
Inbox
AN
Denis
Ken
Connie
SPAM
Outbox
AmikaNow
Denis!
Ken
SPAM
Direct Reports
XYZ News
Finance
Partners
Sue
PQR News
Business
Technical
Unsolicited Porn
FYI
Unsolicited Marketing
(a)
b'
c'
250
Sue Category
Folders
Sue
Admin
HR
Finance
Partner
SPAM
Outbox
Date
Sender
Subject
Time
Type
7/12 Sue@ Finance 4:00 email
7/12 Sue@ Partner 2:00 vmail
6/12 Sue@ FYI 7:00 fax
5/12 Jim@ HR 4:00 email
4/12 VCnews@ Event 9:00 email
4/12 Sue@ Bank 10:00 fax
3/12 CIBC@ News 3:00 email
3/12 Sue@ Update 4:00 vmail
2/12 VC@ Query 2:00 email
2/9 Sue@ Contract 1:00 fax
2/12 Bank@ Research 7:00 email
200
(b)
Sue Category
Admin
HR
Finance
Partner
SPAM
250
d'
e'
(c)
Finance Category
Folders
Sue
Bank
Venture Cap
Government
Tax
SPAM
Outbox
Date
Sender
Subject
Time
Type
6/12 Chris@ Bank 4:00 email
1/12 Sue@ VC mtg 1:00 email
6/11 Ken@ New VC 6:00 vmail
3/10 Tim@ Grants 7:00 email
7/9 Sue@ Angel Fin 11:00 email
200
(d)
Finance Category
Bank
Venture Cap
Government
Tax
SPAM
250
(e)